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ABSTRACT

This paper describes the Orange Plan, a learning support system at Orange Coast College (California) which creates alternatives to traditional educational experiences. The Orange Plan is composed of four subsystems: (1) learning contracts, (2) information systems, (3) resource consultants, and (4) interdisciplinary studies courses. Each subsystem is designed as an alternative to existing systems within the educational institution--classroom learning, textbooks, teachers, and discipline curriculum. The Orange Plan is intended to be holistic and integrated, using tools of the current system (classes and curriculum) and adding components which allow the student to fulfill personal and social objectives while satisfying content requirements. The bulk of this document consists of statements of program goals and means available to the student for achieving them; a description of the Plan's contract learning, specifying objectives, procedures, responsibilities, and evaluation; a description of the information system; and a brief description of the Orange Plan's interdisciplinary courses. An institutional evaluation report and recommendations pertinent to the Plan are attached. (Author/JDS)

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The Orange Plan:

A Model for Interdisciplinary Studies in Junior Colleges

by

Robert Blissmer

JC 760 513

If there is a fundamental proposition that stands out in the complex waves of change that are transforming the world it is that humanity has begun to perceive its relationship to the universe in new ways. New perceptions create new images. We should orient ourselves to creating environments in which to deal with these images.

Humanity is discovering many generalized principles and relevant new information in its search for order and unity with the universe. The realization that there now exists and will continue to exist severe environmental problems forces many of the past and present educational concepts to seem obsolete, misinforming and irrelevant. The "Spaceship Earth" metaphor takes on significance as we discover the inter-connectedness of ecological and human systems. Common threads of systems theory are emerging from such diverse fields as biology, physics, psychology, sociology and cybernetics.

The increasing complexity of a vast information explosion, coupled with an extensive distribution network to communicate that information, is producing shock waves in our educational institutions. A paradox arises because of the ever-widening scope and availability of all kinds of information and the seeming inability of the educational complex to integrate it in a comprehensive anticipatory manner. The specialist keeps up with change, but in his pursuit of information becomes over-specialized and fragmented, unable to communicate with anyone but another specialist of the same breed. New tools are obviously needed which are capable of transcending the myriad of information and specialties. Communication has made the planet accessible to everyone vicariously and has introduced many new cultural inputs to humanity's store of knowledge and strategies for growth.

There appears to be, according to economic thinking and action, a limited availability of classrooms and teachers to cope with the educational needs of the planet. This is due to a lack of alternatives being perceived by educators, thus making changes a laboriously slow process in the educational industry. The classroom-textbook model of education implies a limited perception. Humanity now has access to more information outside the classroom than inside.

The new environment we have created offers us new vistas of freedon and individuality. It creates new and diverse patterns of growth for the individual. In former times one could become "educated" and remain so for relatively long periods of time before change or dissonance set in. The old perceptions created a basic set of rules for education.

The college itself may not change rapidly enough to provide new perceptions, but it has provided a mechanism to investigate the possibilities for change. As Michael Rossman said: "However rigorous or barren institutional terrain appears, such things are possible for those who choose to see them."

I am most respectful and committed to those individuals who are willing to make this type of commitment to change, wherever it may lead. I particularly love those people who are willing to look ahead and do more than talk about something. The educational scenario has been set by the changing patterns of evolution, and anything more than rhetoric will depend upon whether or not people question the status quo and develop alternatives in education. Apathy may be the dominant mood of the campus, but there is no reason to believe that nothing can be done if we are willing to reach further than before.

The primary purpose of this book is to explain an alternative, an alternative that will extend education beyond the institution's imagination. Like a roadmap, it is helpful for students on educational trips. It is designed to help you, but remember, it is not an answer or a way. You will still do your own thinking, for in the end, it is you and you alone who must take the trip.

THE ORANGE PLAN

> Nothing seems to be more prominent about human life than its wanting to understand and put everything in order.
>
> R. Buckminster Fuller

The Orange Plan at Orange Coast College is a learning support system which creates alternatives to traditional educational experiences in the college. As a system to provide educational strategies, the Orange Plan is composed of the following subsystems: 1) learning contracts 2) information systems 3) resource consulting 4) interdisciplinary studies courses. Additional sub-systems will develop as the Orange Plan evolves.

Each of the subsystems is being developed as an alternative to an existing subsystem within the educational institution. Contract learning is an alternative to classroom learning. The information system is an alternative to textbooks. Resource consultants are an alternative to [illegible] interdisciplinary studies courses are an alternative to discipline [illegible].

The purpose of the Orange Plan is to provide a framework or scaffold that students may use to design their own learning activities in such a way that learning will be comprehensive and meaningful to the individual. Each subsystem serves as a vehicle with the sole purpose to support students attending Orange Coast College who wish to expand their scope of educational experiences.

As a program, the Orange Plan is committed to the following goals:

1) To encourage the student to play a larger part in the scope, direction and process of his own education.

2) To encourage self-actualization and individual growth

3) To encourage problem solving in the students' social environment

4) To encourage self confidence and responsibility in the learner

5) To encourage effective communication skills

6) To encourage functioning in a resource environment

Students attending any institution should demonstrate an ability to think and act clearly. This ability can be demonstrated by achieving the program goals. Each of these goals is defined more fully at the end of this section.

The emphasis in the Orange Plan is on process rather than end product. Somewhere, between the specialist who learns more and more about less and less, and the generalist who learns less and less about more and more, lies the person who is able to successfully integrate the parts with a way of thinking or "frame of mind". That person will be able to adapt to his or her changing environment as well as cope with and exploit the opportunities that confront them. This is the "type" of student that

the environment of the Orange Plan will encourage. A person who has a comprehensive grasp on the elements of communication, both verbal and non-verbal, problem solving, personal growth, and environmental consciousness. A definition of education must encompass the needs of the individual operating in an imperfect society. This implies a shift to a more holistic, pragmatic approach in which the student has maximum opportunity to participate in the development of his or her education.

The key to this type of development lies in the integration of subject matter and tools into a single unified system. Utilizing the present educational system, adding conceptual tools, allowing for experiential learning, the institution can aid the individual in evolution through cognitive action. The Orange Plan starts with the tools of the current system (classes and curriculum) and adds components which allow the student to fulfill personal and social objectives while satisfying content requirements.

Contract learning allows an individual to fulfill all or part of the curriculum requirements in alternative patterns, thus freeing the student from time/method constraints which might hold back growth. The information system allows the individual to participate in the gathering and using of resources in an age of complex information environments. Diagnosing the individuals needs and developing learning programs is aided by resource consultants. Alternative courses allow alternative perspectives in a specialized curriculum.

As a result of participating in the Orange Plan, the student gains a perspective which would be valuable input to a later process. It would

provide a foundation for students who wished to continue their education and select a specialization or career. The program would provide excellent pre-specialist training in problem-solving and comprehensive analysis for students who might want to major in such fields as business, administration, architecture, planning design, social science, education, environmental science, political science, or philosophy.

The Orange Plan would function by using an experiential process which would facilitate students becoming effective and knowledgeable citizens, an outcome measure induced by their personal experiences and applied abilities working con-commitently to deal with interrelationships of people with people, people with society, people with technology and people with environment.

"In a broader sense, the college is committed to the growth of the individual as a person, as a citizen of his community, nation, and the world, and as an enthusiastic and competent participant in his civilization and culture."

This statement, taken from the Orange Coast College catalogue, reflects the goals and objectives of the Orange Plan.

PROGRAM GOALS

1. To encourage the student to play a larger part in the scope, direction and process of his own education.

The Orange Plan is a methodology which places the responsibility for education on the individual student. Education, at best, is a random activity, unless the student takes some action on the process. The intent of this goal is to provide students with the opportunity to take an active part in their educational process and to make an impact. Steps for meeting this goal might include:

1. Plan the educational activities by writing a learning plan to
   a. establish your needs
   b. articulate goals
   c. outline ways of meeting goals
   d. determine how it will be evaluated
2. Carry out the prescribed activities.
3. Evaluate the impact of the activities.
4. Participate in contract learning

This goal may be considered accomplished when the student has developed his or her educational plan, fulfilled obligations of any procedure undertaken, and thus demonstrated that he or she has indeed taken a part in defining and pursuing educational goals.

2. To encourage individual growth and self-actualization

Growth and self-actualization revolve around a concept of awareness of self, awareness that there is a you which goes deeper than your roles. Actualization of self cannot be sought as a goal in its own right. It is a by-product of active committment to a cause outside the self, such as the search for beauty, truth of justice.

Individual growth occurs in two basic realms: increased awareness of his or her own values needs and desires, and increased awareness of other people.

The world we are moving into may have little resemblance to the past, so the need to examine our earlier behaviors becomes acute. Our self is the process of interaction with the environment.

Possible activities and combinations of activities might include:

1. participate in one or more extensive workshops designed to increase awareness of self and others
2. read and discuss or report on a number of novels, and relate these to your own life experiences and goals
3. involve yourself in a project in which you are playing a role which involves a variety of situations and write a detailed analysis of the role played, its impact on others and the learning that occurred from the experience.
4. examine, list and write a comparative analysis of the values of society and the values of the individual.

The possibility that interaction in group processes may facilitate individual growth towards self-actualization will not be overlooked, group feedback and reflection of self are important tools in individual growth.

3. To encourage proficient problem solving in the students' social environment

Through the process of design, problem solving can be recognized and adopted as an activity which will fill the gap between a situation as it is and as we would like it to be. Much of our academic life is problem solving activity, however we do not, for the most part approach problems systematically. To accomplish this goal, the student will:

1. choose a particular problem
2. define a set of steps to go through in reaching a solution
3. carry out the steps
4. reach a conclusion

Although it is obviously desirable to come up with a successful solution, this would not be necessary to meet the goal. To facilitate this goal, the Orange Plan has:

an information system from which to select problems, contract process to define and formalize problem-solving steps and resource consulting to assist the problem-solver.

4. To encourage self-confidence and responsibility in the learner

Responsibility and self-confidence are feedback in the learning process. To evaluate your activities as a learner involves the answers to questions such as:

1. What did you actually do in your studies?
2. What do you estimate was the principle of learning or growth that took place?
3. How does your plan of study compare with your original expectations?
4. How have you demonstrated what you have learned?
5. What were the strong points of your work?
6. What aspects need the most improvement?

The whole process of writing and completing contracts under the self-direction and motivation of the individual student is designed to help the student develop a greater sense of confidence in his or her own abilities and a realization of the responsibility inherent in that process.

The goal can be considered accomplished when the student demonstrates his or her ability to complete tasks in a pre-defined and systematic manner.

5. To encourage effective communication in verbal and non-verbal behavior

The ability to communicate effectively is one of the most useful skills a person can develop. We all have ideas and capabilities, but cannot communicate them. As a result, much useful information may be lost.

Verbal:

1. performs before an audience
2. take part in a variety of meetings or dialogs
3. engage in discussions
4. present ideas of information

Non-verbal:

1. write evaluation reports
2. write contracts
3. write analyses
4. express self through art
5. learn a non-verbal language

Communication is an open-ended behavior. Students must develop skills in both receiving and sending messages. Inputs and outputs will be of comprehensive nature, sent and received by a holistic environment, both social and material.

6. To encourage functioning in a resource environment

Every community and institution is filled with people, agencies, organizations, businesses and other variables which are rich resources. A person should be able to solve problems in a community using available resources whenever possible. The problems might be social, economic, personal, political or any combination of these or others. To demonstrate accomplishment of this goal, the student should demonstrate the ability to identify resources and use them in solving specific problems. A full knowledge of where to turn for help is a desirable goal. Utilization of resources is one of the most important parts of the Orarge Plan's commitment to this goal.

1. Work as a volunteer worker or as a social worker.
2. Design and develop business procedures utilizing the assistance of business, social and legal entities in the community.
3. Coordinate local resources to solve a problem.
4. Get involved as a counselor or a tutor.

"And in the end, the love you take
is equal to the love you make."
Lennon/McCartney

The future process and implementation of education lie in areas outside the classroom.

How can educators integrate experience that is relevant to the students' education, education that does not currently exist within the boundary of accountability? One solution to this problem is the learning contract. Learning contracts allow the student to design experiences and fulfill objectives that stem from the individual's special interests and needs. The contract becomes a guide of "game plan" as well as a statement of responsibilities assumed by the student.

Program objectives for each individual student involved in contract education as a part of the Orange Plan are:

1) To fulfill course content requirements for each of the specific contracted areas of study engaged in.
2) Specify in detail, in a single or series of contracts between students and instructors, the context of the contract and the manner by which the students will master the context.
3) Set forth the means and criteria for evaluation.

Basically, contract learning is not a new concept, but a different approach for the student who has not heretofore taken an active part in his or her educational process. Contracting does involve the student/instructor to a greater extent, but it also individualizes education without many of the inherent problems of student/instructor ratios which might impede a more personalized form of education.

With learning contracts, the Orange Plan will provide an opportunity to individualize a system of accountability that will combine the rights

and responsibilities of both students and instructors. The basic elements of the system will be established when students negotiate contracts with instructors in their areas of study. The process of negotiating, developing, and writing of the contract is a learning experience in itself, and should be taken into consideration when determining the credit value of a contract.

The contract learning method has been formally adopted at Orange Coast College, but the final decision on whether or not to contract rests with the students and instructors involved. All contracts will require third party verification, which in most cases will be the cognizant division chairman.

The parameters associated with a contracted form of education allow the student greater flexibility in the way he can obtain course credit. A student might develop contracts to participate or tutor in specific areas; work, participate in community services or social service agencies; study at other institutions; attend seminars; design experiments or projects; or study and live in an alternate environment.

In contracting, the emphasis is on process rather than on outcome. Theoretically, a student could write a contract and fail to carry out the specified task, yet in the process gain insight and knowledge.

The initial procedure for contract learning at Orange Coast College is as follows:

1) The student(s) should have made preliminary contact with an instructor of record in the course they wish to contract. At this time the student would outline his or her intent and general goals.

2) Upon agreement to try an alternate method, the student would enroll in the specified class through the conventional registration procedure. His name would appear in the records as being a student officially enrolled in that course.
3) At any time during the above process, the contract would be negotiated and drawn up between contracting parties.
4) Initially, the time frame for a contract would parallel the semester. The actual process time, however, might be shorter or longer depending upon the individuals involved.
5) When the contracting instructor determines that the goals and objectives have been completed and the requirements met, he can then assign the appropriate grade for the course based upon the evaluation terms of the contract.

Several interesting variations on contract learning can be developed from the basic student-instructor combinations possible. Since a student is officially enrolled in class, the contract might specify attendance at part of the regular class lectures. A group of students might jointly negotiate a learning experience with an instructor and develop a personalized course. Two or more students might write a single contract for one course. One or more students might combine several courses into one contracted area of study. The limit to the possibilities is in the imagination of the contracting parties. In all cases, however, the contracts will develop from discussion between students and instructors, and the contract which results will be geared to meet the needs of the individual student. The responsibility and integrity of the instructors will be the determining factor in what can be contracted and what will meet the requirements of the course being contracted. In any case, learning and living should be related, especially in an educational environment. Arthur Chickering said:

"Students must clarify for themselves where they stand and must determine for themselves where they want to go and how they want to get there...the instructor's task is not to alter a loose fitting jacket for a more precisely tailored one. It is, instead, to increase the range of alternatives through which student development can proceed."

Preparation of a learning contract is a learning process that involves formalizing how you plan to go about obtaining an education. It does not imply that you need to know everything in advance, but it does imply translating your ideas into formal statements of intent and responsibility which serve as guidelines for achieving the desired results. The basic Orange Plan learning contract can be divided into six sections: description, objectives, procedure, student responsibilities, instructor responsibilities, and evaluation (refer to the attached sample contract format). Each contract should be structured according to those guidelines.

I. Description

In this section, the students will specify what it is they are trying to do and what the results of their study will be. It is a synopsis of the intended outcome of this particular area of study. It should revolve around the content requirements for the particular area of study from either the catalog description or the instructor of record, and the contribution that this specific contract will make toward the realization of those goals. For example, a contract for Environmental Planning 110 - Introduction, might have the following description: "The course deals with an overview of current problems and analysis of available and potentially available solutions to these problems. I would like to read, study and integrate the writings of

Buckminster Fuller and see how they apply to the fields of environmental planning. It is hoped that this research will provide me with an alternate perspective on the solutions to the problems that are facing the world today."

This section is very general, and serves as an overview of the process and end result of the proposed contract.

II. Objectives

An objective is a statement of intent. It specifies what the learner is to be like when he or she has successfully completed a learning experience. When clearly defined objectives are lacking, it is impossible to select appropriate materials, content or procedural method. An advantage of clearly-defined objectives is that the student will be able to evaluate his or her own progress at any point along the way and organize efforts into relevant activities. An important point to remember is not to confuse objectives of the contract with a description of the contract; the latter is more appropriate to the procedure section.

The objectives tell what the student will be like as a result of some learning experience; a description tells only what the contract is about. As an example for the above description, an objective might be stated as follows: To be able to explain the principle of synergy as it relates to environmental problems. This statement communicates an aim rather than a description. It describes a goal or behavior at the end of the process or what the student is supposed to be like as a result of reading Buckminster Fuller.

A meaningfully stated objective is one that most successfully communicated your intent, and leaves as little as possible open to subjective interpretation. How to write objectives that will describe the desired behavior at the end of the contract can be stated in the words of Robert F. Mager: "First, identify the terminal behavior by name; you can specify the kind of behavior that will be accepted as evidence that the learner has achieved the objective. Second, try to define the desired behavior by further describing the important conditions under which the behavior will be expected to occur. Third, specify the criteria of acceptable performance by describing how well the learner must perform to be considered acceptable...The object is to write objectives that communicate; the characteristics described above are merely offered as guides to help you know when you have done so."

A useful guide for the preparation of learning objectives is Preparing Instructional Objectives by Robert F. Mager.

III. Procedure

Once the behavioral objectives that the student is establishing for himself have been stated and defined, the process through which these objectives will be realized will include some or all of the following: A description of any project that will be undertaken; a list of books and articles to be read; specification of the nature of any research to be carried out; an enumeration of papers to be written including the nature,subject and length of those papers; a description of the work or service to be performed. In short, the procedure section is a detailed description of how the contract is to be executed.

IV. Student Responsibilities

The responsibilities that the student takes on as a result of participation in the scope and direction of his educational process involves a description of the commitments that the student is establishing when he develops the contract. You are essentially pledging yourself to do something, and whether or not you do it is a function of how strongly you feel about the commitment. You are committing time and energy to a specific process. You can do this in many ways, but one important thing to consider is education is a self-taught process, and although guidance and direction come from outside, you are the only person who can really evaluate what it is you have accomplished.

V. Instructor Responsibilities

The instructor(s) should specify what their commitments will be in relation to the specific contract. This might include: A commitment of time or individualized aid to whatever extent it is needed; the commitment to give of their own personal resources, including knowledge and ideas; materials such as books, tapes, or articles; relevant contacts one might have in the community; and the intangible factor of personal presence or personal commitment to assist the students.

VI. Evaluation

Evaluation is the criteria for determining whether or not the terms of the contract have been fulfilled by both students and instructors. If the student(s) have fulfilled objectives and can demonstrate their competency or mastery of the subject matter, grades can be determined and assigned. Evaluation is also an attempt to evaluate information regarding the success or failure of a method to arrive at objectives

of any given contract. It is an attempt to measure the content objectives as well as the affective objectives of the contract. The latter is much more difficult, since attempts are rarely made to measure the affective domain of a student's experience and learning in a classroom.

The approach then is that learning is an individual experience as well as a self-taught procedure, and that the institution should provide offerings which accomodate different people's needs. Contracting provides a framework for individual students, their needs and their strengths.

ORANGE COAST COLLEGE
LEARNING CONTRACT

COURSE_____

UNITS_____

CONTRACT#_____

GENERAL DESCRIPTION:

SPECIFIC OBJECTIVES:

GENERAL PROCEDURE:

STUDENT RESPONSIBILITIES:

INSTRUCTOR RESPONSIBILITIES:

EVALUATION:

"The medium is the massage."
Marshall McLuhan

A method for providing an effective experiential learning environment involves the alternative of a new style of educational relationship between the learner and his or her environment. To encourage this style, the tools available for learning will have to change. The information system is one of these tools which expands the concept of learning media associated with education. It becomes a new medium to think with and concurrently gives us new perspectives in which to explore our thinking. Ivan Illich: "A good educational system should have three purposes: It should provide all who want to learn with access to available resources at any time in their lives; enpower a. who want to share what they know to find those who want to learn from them; and, finally, furnish all who want to present an issue to the public with the opportunity to make their challenge known."

Systems for understanding and organizing information and its uses, with the capability for the individual student to participate in the process, are being developed as a part of the Orange Plan. The systems function as focal points of activity into which specific problems, projects, and ideas can be sorted and studied. As such, they are intended to help understand learners' relationships to their environment. They function as devices for logically collecting, storing, and retrieving information about the college, the community, and the world in a useful manner.

The information systems goals expressed in categorizing information are:

1) Establishment of the following data banks:
    a) Categorizing information for the college by classes, and their description goals and resources.
    b) Build alternate groupings of classes and instructors.

c) Information about people, by contracts.

d) Matching people by interests.

e) Community resource data bank.

f) Global information system.

2) Integrating the learners' participation with the creation, maintenance, and utilization of the information systems.

Information systems function as alternatives to instructional media. They become learning media for they demand participation and involvement by the individual learners. This concept, as it applies tc the Orange Plan, allows learners, using their intellect and energy, to deal with organizing and understanding information as a resource. Information as a resource is different in its utilization from information as subject matter. The experience of adding, changing and utilizing comprehensive information at an individual level of understanding and participation allows the learner access to information as a process.

One of the starting points in the development of meaningful information systems is the incorporation of the Design Science Information System (DESIS) into the Orange Plan. DESIS was developed through the efforts of Earth Metabolic Design Inc., a non-profit corporation organized to undertake projects to help insure the continued survival of humanity.

The system has the capability to categorize and include present and future activity of humanity in its environment. The most general categories in the system are based on areas of human need. The areas are: energy, food, transportation, health/medical care, communication, education, recreation, logistics, shelter, and materials. In addition to these ten areas, there is the ecological context, which is the everything else category that defines nature. Information about any observed phenomena should be able to be placed in these eleven areas. They compose a model of reality which is a useful

tool for making intelligent decisions.

A central work area is set aside in the Environmental Center where people have access to documents and other supporting data. People could work as individuals or in teams to search, discover, and supply ideas and information which would be used as input to the system. Ideally, groups of concerned people would meet to engage in learning, study, exchange of information, research, and interaction with one another and with people outside the program. DESIS could be more than a purely academic exercise. Hopefully, it would serve as a resource, and be made available to various members of the community and other people who desired to make use of a comprehensive information system.

Following is an excerpt from Science magazine, May, 1972, which outlines, in a comprehensive manner, the need for changing methods of dealing with people's relationships to their information environment.

> What is needed to ensure that societies make wise decisions? First, information. Information is needed to tell us what our society is now, how rapidly it is changes, what changes are taking place, and what scientific and technological alternatives to present practices exist or can be found.
>
> Second, social analysis. Analysis is needed to determine what relationships exist between current actions and future effects, to weigh the merits of alternative priority systems, to derive practical achievable goals for society, and to determine how best to allocate our finite resources to attain these goals.
>
> Third, well-informed decision makers. Society requires mechanisms to ensure that decision makers, including the public, have access to the information they need, have available the result of the analyses carried out, and have alternative courses of action formulated for their consideration.
>
> Fourth, appropriate institutions. Institutions are needed to ensure that decisions can be out into practice. They take many forms--political institutions, financial institutions, legal institutions, and educational institutions.

> Four general communities are recognized to be in need of information; (1) the scientific specialist (the researcher) (2) the industrial engineer (the applier) (3) the planner, the policy maker, the decision maker and the manager (the innovators and guiders) and (4) the public (the consumer, beneficiary and victim). These users are listed in decreasing order of specialization and increasing order of breadth and generality. Each community needs reliable information that is appropriately interpreted and related to other information, and that is packaged for easy access.

To meet these ends, the Orange Plan is developing methods for implementing information systems which provide media for the exploration and participation of the individual in his own growth. It is an alternative for satisfying student needs and accomplishing educational objectives.

"The most important point about tomorrow is not the technology or the automation, but that man is going to come into entirely new relationships with his fellow men...I think the way to see what tommorrow is going to look like is just to look at our children."

R. Buckminster Fuller

As students develop new alternatives, new choices for learning and new methods of interrelating with people, they may experience more deeply their need for guidance and direction, as well as the need for independence. Recognition that there exists resources in the form of people with knowledge of a skill or discipline and determining ways to facilitate individual progress through the educational journey is the first step in resource consulting. Individual learners need assistance and intellectual leadership while journeying through the academic institution.

To operate the interpersonal networks involved in the Orange Plan requires instructors to maintain a perspective of facilitating encounters among students, modeling specific skills, providing educational leadership, and be willing to sustain the student in his or her educational pursuits. The resource consultant would perform a variety of functions, such as counselor, researcher, coordinator, librarian and information source. He should provide motivation, direction and expertise in an instructional capacity.

Resource consultants function as managers of learning. Their objectives in terms of the Orange Plan are:

1) Diagnosing learners' needs and developing learning probrams to accomodate the individual
2) Planning and preparing learning programs in conjunction with the diagnosis
3) Working individually or in small groups with learners

4) Selecting and developing a variety of learning materials

5) Providing feedback to the learners' progress

6) Monitoring the students' progress

These goals are accomplished as a part of the student/instructor relationship established by contracting and resource facilitating.

A student progressing through Orange Coast College should be able to set his or her own paths through the system. The student would probably seek advice from the resource consultants to help decide upon alternatives, to set up new goals, and to get around barriers and difficulties encountered. It is probably true that these services are the important, informal functions provided by instructors in their present capacity, but procedures are needed to deal with the numbers of students who might become involved in alternatives.

The responsibilities of instructors must be redefined, and devices added to the repertoire of diagnosis and therapy approaches. With the assistance of "learning media" the instructor can obtain the necessary information to identify learning difficulties quickly and accurately and assign appropriate experiences to exploit the learners' interest and potential.

> The content of our education, the bulk of complexity and detail of our knowledge, requires restructuring into new assimilable wholes so that it may be imparted...in terms of whole systems.
> John McHale

The set of interdisciplinary courses is tied directly into the subsystems that comprise the categories of the Design Science Information System. They are courses organized by system areas, not by discipline or academic subject matter, and have their origin in the concept of systems theory as applied to educational curriculum. The initial intent is for the courses to be taken in a contracted manner, with interested groups of people working to refine and update the set of DESIS documents. The function of any particular course is the design parameters of the people and their particular needs when contracting the course. The courses might also tie into projects which relate to the subsystems of the information system. The people involved would explore the areas utilizing conceptual methodology, experience, and alternatives. Upon completion, he or she would document the results of the exploration for inclusion into the information system.

The interdisciplinary courses are:

INT 201 Education	INT 206 Transportation
INT 202 Health/Med Care	INT 207 Communications
INT 203 Recreation	INT 208 Food
INT 204 Energy	INT 209 Shelter
INT 205 Logistics	INT 210 Materials

These courses have no prerequisites, and need not be taken in any order or sequence. Grades for the classes would be on a credit/no credit basis with credit being granted for participation in the exploration process rather than quantity or quality of finished product. This is designed so that each student can learn in a personal and meaningful manner.

SUMMARY

If we are going to perceive education as a new relationship to the environment, we must develop a fundamentally different strategy for alternative education. The impetus to develop more subjects in the curriculum is merely adding to the fragmentation and stress upon the colleges. The emphasis should be placed on developing new learning categories or subsystems and training personnel with emphasis on problem-solving, human relationships and administrative skills. It is to these goals that I am directing this paper.

February 10, 1975

Memo To: Jack Scott
Muriel Allingham-Dale
Gene Overholt
Ron Schryer
Vince Morgan

From: Bob Blissmer

Subject: Orange Plan Evaluation

This is a subjective written evaluation by the designer of the Orange Plan. As such it contains my own biases, as well as my need to defend something that I believe in. I intend to share with you my doubts and frustrations as well as my achievements. Still, the central question the evaluation committee should concern itself with is:

Should the Orange Plan continue as a justifiable enterprise, or should it be discontinued as an Orange Coast College activity?

In order to address this question, I will first state a list of the program components, their strengths and weaknesses, and my specific recommendations. Then I will give an overview of my feelings about factors that contribute to this type of innovation, and those which impede it.

I believe that the Orange Plan is a viable and justifiable enterprise at Orange Coast, and that every effort should be made to strengthen and continue innovations such as this at the college. An educational utopia remains constantly beyond our reach, and that goal will continue to remain inaccessable as long as education fails to coordinate the "right answers" into a holistic approach to problem solving.

This report contains no hard data about student performance, accomplishments, drop-out rates, or program costs. Relying on the insights of traditional measures of performance alone are not applicable. New insights into and understanding of the problems themselves will be necessary to solve complex educational problems.

Program Components

The basic subsystems of the Orange Plan are: 1) learning contracts 2) information systems 3) resource consulting and 4) interdisciplinary studies courses. I will examine each program component in that order.

1. Learning Contracts

Description: A learning contract is a document written by students and instructors that specifies what the student will learn, how he or she will learn it, and the time duration and method of evaluating the contract. It implies the translation of ideas into statements of intent (objectives) and procedure (student responsibilities) which serve as guidelines for achieving the desired results. The contract becomes the "game plan" for the contracted experience.

Theoretical Purpose: To allow a student to fulfill all or part of the curriculum requirements freeing him or her from time/method constraints which might hold back growth.

Practical Purpose: Students can "do their own thing" and instructors can get paid for supervising such efforts.

Advantages: Encourages students to think about their educational goals. Provides an alternative to the classroom. Produces alternative classes which are not normally available. Allows instructors to be paid for their out-of-class instructional activities. Individualizes the education process. Provides a strict system of accountability. Allows student greater flexibility in ways to obtain course credit.

Disadvantages: Does not provide motivation or incentive (external). Creates competing situations among some faculty. Students are not programmed to accept contracts as an accepted part of the institution. Requires a great deal of individual effort on the part of the student in distinction to most classes. Its newness creates misinformation among faculty and students about what it's all about. Seems to have created an informal "for it or against it" attitude on campus.

Recommendation: I recommend that the learning contract be established as an institution of the school, to be controlled through records and admissions, and every effort be made to clarify its uses and abuses so that students are aware of this option and can intelligently use it to get the most out of Orange Coast College. I have developed a learning contract guide packet that should be evaluated and made available through the bookstore at nominal cost to the students.

2. Information Systems

Description: A resource information center which contains information about where to obtain alternative ideas, resources and perspectives as categorized by eleven areas of human need: education, recreation, health/medical care, communication, transportation, energy, food, shelter, materials, logistics, and the ecological context.

Theoretical Purpose: It functions as an alternative to instructional media. It becomes learning media, because it demands participation and involvement by the learners.

Practical Purpose: Employs the concept of utilizing resources of individuals and institutions outside the campus. Serves as an educational aid by functioning as a reading room for alternatives.

Advantages: Another "do it yourself tool" like the library. Provides additional information to browze through and use. Allows students to participate in gathering information.

Disadvantages: No one knows it's in the conference room of the Environmental Center. No control over the room (i.e. anyone could steal the information quite easily).

Recommendation: I recommend that the resource information center now located in the conference room of the Environmental center be moved to the conference room in the library (subject ot library approval) and that the information therin be controlled through existing checkout procedures, and that course credit be granted to students functioning to maintain the system.

3. Resource Consulting

Description: To diagnose individual learning needs and develop learning programs to fit those needs. To provide guidance and direction to students.

Theoretical Purpose: To add to the repertoire of diagnostic and therapy approaches of instructors.

Practical Purpose: Redefines role of counselling to that of manager of learning.

Advantages: Informal resource consulting provides alternative guidance perspective. Provides feedback to the individual learners progress.

Disadvantages: No way to follow up students effectively. No way to coordinate all areas of the college. Faces all the same problems that counselor faces. Seems to be too general in the sense of trying to cover too much ground.

Recommendation: I recommend that a system be developed whereby information can be made available to instructors so they may devote part of their time to resource consulting. Instructors need to be comprehensive enough to provide this function, yet specialist enough to tell students about their own area.

4. Interdisciplinary Studies Courses

Description: A set of ten courses which stem from the same ten areas of human need that the information system is organized around.

Theoretical Purpose: A contrast to the progressive specialization inherent in discipline curriculum, these courses offer a comprehensible whole and a manageable approach to education.

Practical Purpose: Provides a vehicle in which the design parameters involve the people and their particular needs when contracting the course.

Advantages: Flexibility. Allows students to "do their own thing." Allows teachers to "do their own thing." Provides an alternative to the regular scheduled class. Provides alternative perspectives.

Disadvantages: Most students can't handle freedom. Students many times too loose in their thinking. Hard to administrate. A lot of work on an individual basis.

Recommendation: I recommend that these courses continue and that they be given more structure and related more directly to the goals and purposes of the information system. These and other courses should be scheduled in blocks, and any teacher allowed to "teach" or coordinate them, so they could have the freedom to do what they wanted. This policy would allow teachers (along with payment for contracts) to schedule these classes, and they could be canceled if they failed to emerge.

Overview

After a preliminary year of experimentation, it is still unclear to me what goals and priorities I should strive for. As originally conceived, the Orange Plan seems remote from the pattern of activities currently engaged in at Orange Coast. While some administrators and instructors are sympathetic to the Orange Plan, its mode of organization is so unfamiliar to them, that they find it difficult to envision the full scope of its implications. The same is true for students of Orange Coast. They are so pre-programmed into traditional methods of education, that anything outside the ordinary seems difficult to grasp.

Also, I don't see any clear establishment of what alternatives mean at Orange Coast College. We should determine what alternatives are (i.e. contract learning, television courses, interdisciplinary studies, etc.), and once a philosophical base is established, and translated into procedure, we can explore the conditions favoring and impeding educational innovation at Orange Coast.

I am quite frankly dissappointed in the small numbers of students who have shown interest in the Orange Plan. The enrollment is far lower than expected. The major factor, I think, is the one listed above in the first paragraph. Also in a conservative institution such as Orange Coast, any radical innovation should expect a certain amount of inertia and resistance from the established vested interests of faculty and students. A conservative community is usually less willing to accept change.

On the other hand, most of the students I have come in contact with seem to be an innovative group of people. They are willing to take their own education into their own hands, Realizing that the best education is self education. They are also willing to take risks, and they are the type of student who is willing to try anything once. The Orange Plan, like any other innovation is in an early adoption phase, so only a limited number of students are likely to take advantage of it at first. All innovations go through this phase.

An applied science of alternatives is still in the future. Alternative education has sometimes had negative connotations associated with it because of its newness. Developing an administrative framework around the Orange Plan will require the assistance of faculty, students and administration alike.

To enhance your evaluation, you should also interview students who have participated in the Orange Plan, other instructors who are sympathetic to the plan, and objective data from Records and Admissions regarding enrollment figures. I look forward to your committee meetings this semester, and hope that I can be of some service to the committee.

ORANGE COAST COLLEGE

Report of the Sub-Committee Appointed to Evaluate the Orange Plan

During the school year of 1973-74, the curriculum committee approved the Orange Plan, a plan which was basically designed to encourage independent study. Incorporated with this plan was the approval of ten interdisciplinary courses: Inter-disciplinary Studies 201AD, Education; Inter-disciplinary Studies 202AD, Health/Medical Care; Inter-disciplinary Studies 203AD, Recreation; Inter-disciplinary Studies 204AD, Energy; Inter-disciplinary Studies 205AD, Logistics; Inter-disciplinary Studies 206AD, Transportation; Inter-disciplinary Studies 207AD, Communications; Inter-disciplinary Studies 208AD, Food; Inter-disciplinary Studies 209AD, Shelter; Inter-disciplinary Studies 210AD, Materials. Bob Blissmer was selected as director of the Orange Plan, being granted one-half of his teaching load to promote the Plan and direct the ten interdisciplinary courses.

When the Orange Plan was approved in the spring of 1974, it was stipulated that the Plan would be evaluated during its first year of operation. In order to fulfill this charge, on January 8, 1975, Dr. Robert Moore appointed a sub-committee of the curriculum committee to evaluate the Orange Plan. This sub-committee was composed of Jack Scott, Muriel Allingham-Dale, Gene Overholt, Vince Morgan and Ron Schryer.

This sub-committee has met regularly in order to fulfill its task. Attendance and persistence statistics have been gathered. Eight students who enrolled in Orange Plan courses during the fall semester have been interviewed. Bob Blissmer was interviewed by the committee at its second meeting on February 24. Three other faculty members who have had some connection with the Orange Plan were also interviewed. Copies of learning contracts have been secured and studied.

In terms of statistical evidence, the following information may be helpful. For the fall and spring semester of 1974-75, the fourth week of enrollment in Orange Plan courses is as follows:

	Fall	Spring
I.D. 201	3	15
202	1	5
203	1	6
204	5	4
205	2	2
206	2	3
207	6	4
208	1	7
209	2	14
210	1	1
	24	61

A persistence study of I.D. 201-210 reveals the following statistics:

12 different students were enrolled of which:

5 different students withdrew from all classes
1 student withdrew from 2 of 3 classes
4 students completed 1 class of 2.0 units
1 student completed 2 classes of 2.0 units/class
1 student completed 3 classes of 2.0 units/class
1 student completed 6 classes of 2.0 units/class

After reviewing the statistical evidence, listening to the interviews, and discussing the matter thoroughly, the sub-committee does have certain impressions. These impressions can best be categorized under the headings of strengths and weaknesses:

I. Strengths of the Orange Plan

1. This Plan reaches and motivates a group of students who are resistant to traditional modes of education

2. This Plan permits greater flexibility of content and method of study than most educational modes

3. This Plan permits flexibility of scheduling (i.e. the student can arrange his own hours and complete the study at his convenience)

4. Many of the students interviewed were enthusiastic about their experience

5. This Plan has served as a catalyst to initiate more independent study on Orange Coast campus

II. Weaknesses of the Orange Plan

1. The Plan has thus far attracted a small number of students

2. Many students are not ready for the self-discipline required by this plan

3. The number of credits assigned and the final grade for the prescribed activity is difficult to determine

4. Some teachers expressed difficulty in supervising students once they have signed up for a course

5. There is a feeling that there is general lack of structure about the Orange Plan

6. There still appears to be considerable confusion in the minds of students and teachers as to what the Orange Plan is, how its works, etc.

In light of these findings, the sub-committee recommends the following:

1. Broaden the base of input and supervision of the Orange Plan whether by the creation of a committee, incorporation in a new division of non-traditional instruction, or some other means

2. Initiate a program to orient the students who desire to enroll in courses in the Orange Plan

3. Select a more descriptive name for the description of this Plan in the catalogue and class schedule

4. Insure that projects or study undertaken under the Plan be directed by instructors whose field of expertise qualify them to do so.

UNIVERSITY OF CALIF.
LOS ANGELES

OCT 29 1976

CLEARINGHOUSE FOR
JUNIOR COLLEGES

October 15, 1976
RB:jd